

SHOW ALL WORK!

Name each figure using letters and symbols.



\overline{TB}

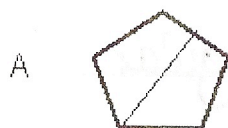


\overrightarrow{NH}

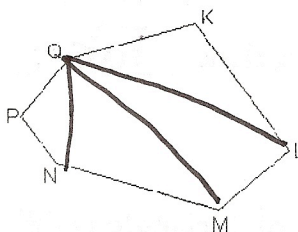


\overleftrightarrow{KR}

4. Which geometric figure below shows a line segment that is also a diagonal? D



5. Jake draws hexagon KLMNPQ, as shown below. What is the greatest number of diagonals Jake can draw from any one vertex? 3



$$\begin{array}{r} 6 \\ -3 \\ \hline 3 \end{array}$$

6. How many diagonals can be drawn from one vertex of a regular pentagon? 2



$$\begin{array}{r} 5 \\ -3 \\ \hline 2 \end{array}$$

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Classify the triangle by its sides.

7. 8 in, 12 in, 16 in

scalene

8. 20 cm, 20 cm, 9 cm

isosceles

9. 23 yd, 23 yd, 23 yd

equilateral

Classify the triangle by its angles.

10.



obtuse

11.



Right

12.



equiangular

True/False: Identify each statement as true or false.

13. All equilateral triangles are isosceles. True (because isosceles have at least 2 equal angles and an equilateral would have 3 equal angles)
14. No isosceles triangle is equilateral. False
15. No scalene triangle is isosceles. True
16. Some equilateral triangles are scalene False

17. The measure of the first angle of a triangle is 48° . The measure of the second angle is 32° . What is the measure, in degrees, of the third angle?

A. 20°

B. 80°

C. 100°

D. 120°

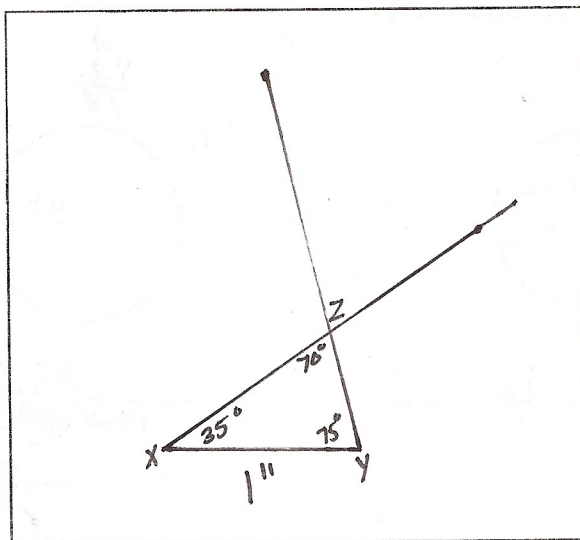
$$\begin{array}{r} 48 \\ + 32 \\ \hline 80 \end{array}$$

$$\begin{array}{r} 180 \\ - 80 \\ \hline 100^\circ \end{array}$$

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18. Draw triangle XYZ with the following measurements in the box below:

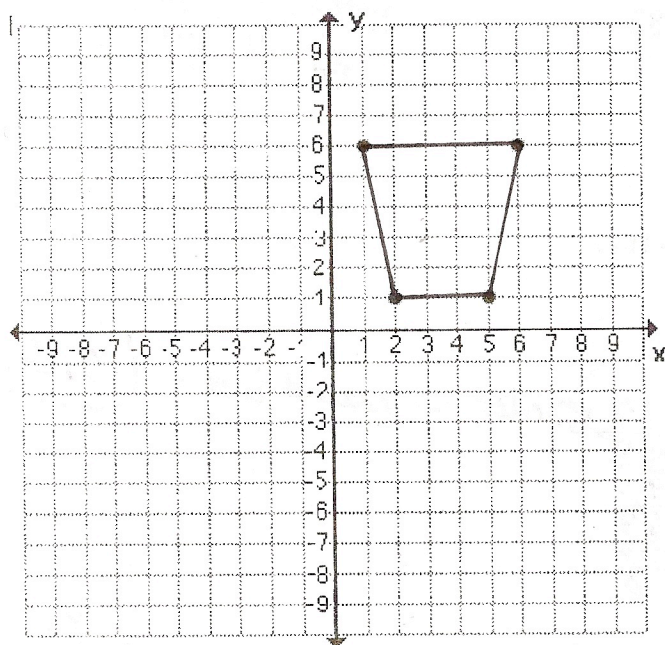
- A. the measure of angle X = 35°
- B. the measure of angle Y = 75°
- C. line segment XY = 1 inch



$$\begin{array}{r} 1 \\ 75 \\ + 35 \\ \hline 110 \end{array}$$

$$\begin{array}{r} 180 \\ - 110 \\ \hline 70 \end{array}$$

19. Maurice is given the coordinates of four points (1, 6), (6, 6), (5, 1), and (2, 1).



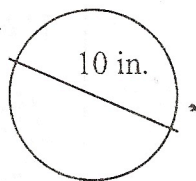
If he connects the points together, what quadrilateral is created?

- A. a rectangle
- B. a square
- ☒ C. a trapezoid
- D. a rhombus

SHOW ALL WORK!

Find the circumference for each circle. Use 3.14 for π . Round your answers to the nearest tenth if necessary.

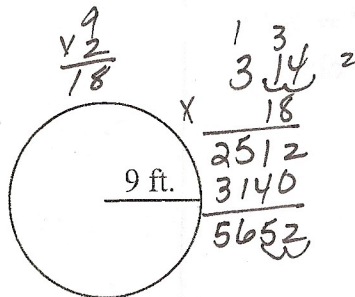
20.



$$\begin{array}{r} 3.14 \times 10 \\ 3140 \\ \hline 31.40 \end{array}$$

31.40 in

21.



$$\begin{array}{r} 3.14 \times 9 \\ 2826 \\ \hline 282.6 \end{array}$$

rounded to tenth
282.6 ft

22. $d = 5.5$ mi

$$\begin{array}{r} 3.14 \times 5.5 \\ 1727 \\ \hline 172.7 \end{array}$$

17.3 mi

Spiral Review

Find the sum or difference and simplify.

23. $12 - \frac{3}{12} =$

$$\begin{array}{r} 12 \\ - \frac{3}{12} \\ \hline 11 \frac{9}{12} = 11 \frac{3}{4} \end{array}$$

24. $9.002 - 3.82 =$

$$\begin{array}{r} 9.002 \\ - 3.820 \\ \hline 5.182 \end{array}$$

25. $\frac{3 \times \frac{2}{7} + \frac{4}{21} = \frac{10}{21}}$

Divide. Round to the nearest tenth if necessary.

26. $32.5 \div 25 =$

$$\begin{array}{r} 1.3 \\ 25 \overline{) 32.5} \\ \underline{25} \\ 75 \\ \underline{75} \\ 0 \end{array}$$

27. $01.53 \div 9 =$

$$\begin{array}{r} 0.17 \\ 9 \overline{) 1.53} \\ \underline{9} \\ 63 \\ \underline{63} \\ 0 \end{array}$$

0.17 rounded to nearest tenth 0.2

Complete the function table.

28.

N	$N + 1.8$
4.3	6.1
6.8	8.6
10	11.8

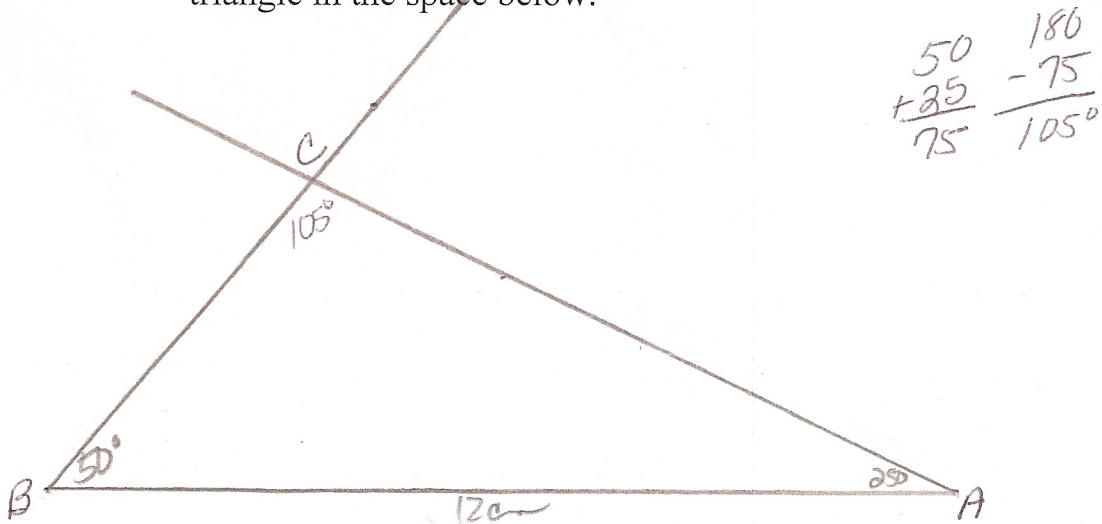
29.

N	$3 \times N$
23	69
24	72
25	75

N	$\frac{N}{3}$
18	6
21	7
33	11

Part A

Triangle ABC has side \overline{AB} which is 12 centimeters long, $m\angle B = 50^\circ$ and $m\angle A = 25^\circ$. Construct the given triangle in the space below.



Part B

Explain why your answer is correct. Use what you know about triangles in your explanation. Use words, numbers, and/or symbols in your explanation.

- all \angle s of Δ s add to equal 180°
- After I constructed my triangle, I measured $\angle C$ to be sure it did equal 105° .